

AMENDMENTS TO THE CLAIMS

Please amend the claims as follows:

1. (Currently Amended) A heat exchange system comprising:

an annular evaporator surrounding a heat radiating portion to have an axis extending horizontally to evaporate a coolant in said evaporator;

a condenser condensing said coolant;

a conduit guiding said coolant from said evaporator to said condenser; and a return pipe returning from said condenser to said evaporator said coolant condensed by said condenser, wherein

said conduit has an opening at an outer circumferential surface of said evaporator;

said return pipe has an opening in said evaporator at a gaseous coolant area;

said return pipe has said opening separated from said outer circumferential surface of said evaporator;

said conduit is larger in diameter than said return pipe;

said evaporator is divided into two sub evaporators;

said conduit and said return pipe are connected to each of said two sub evaporators; and

said two sub evaporators are coupled together by a connection pipe to allow said two sub evaporators to communicate a liquid coolant therebetween.

2. (Cancelled)

3. (Cancelled)

4. (Amended) The heat exchange system according to claim 1, wherein said conduit is connected to said evaporator at an said outer circumferential surface and said return pipe is connected to said evaporator at an axial end surface.

5. (Currently Amended) A Stirling refrigerator having said evaporator of the heat exchange system of claim 44 attached to a Stirling refrigerating machine at a heat radiating portion to allow the system to cool said heat radiating portion.

6-24. (Cancelled)

25. (New) The heat exchange system according to claim 1, wherein:
said two sub evaporators each have a circumferential end surface in said gaseous coolant area, and
said return pipe has said opening closer to said circumferential end surface than said opening of said conduit.